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COPY NO.: 41

PHOTOGRAPHIC INTELLIGENCE REPORT

**PETROLEUM REFINERY NO. 409
KOMSOMOLSK, USSR**



PIC/R-4/59

JUNE 1959

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**CENTRAL INTELLIGENCE AGENCY
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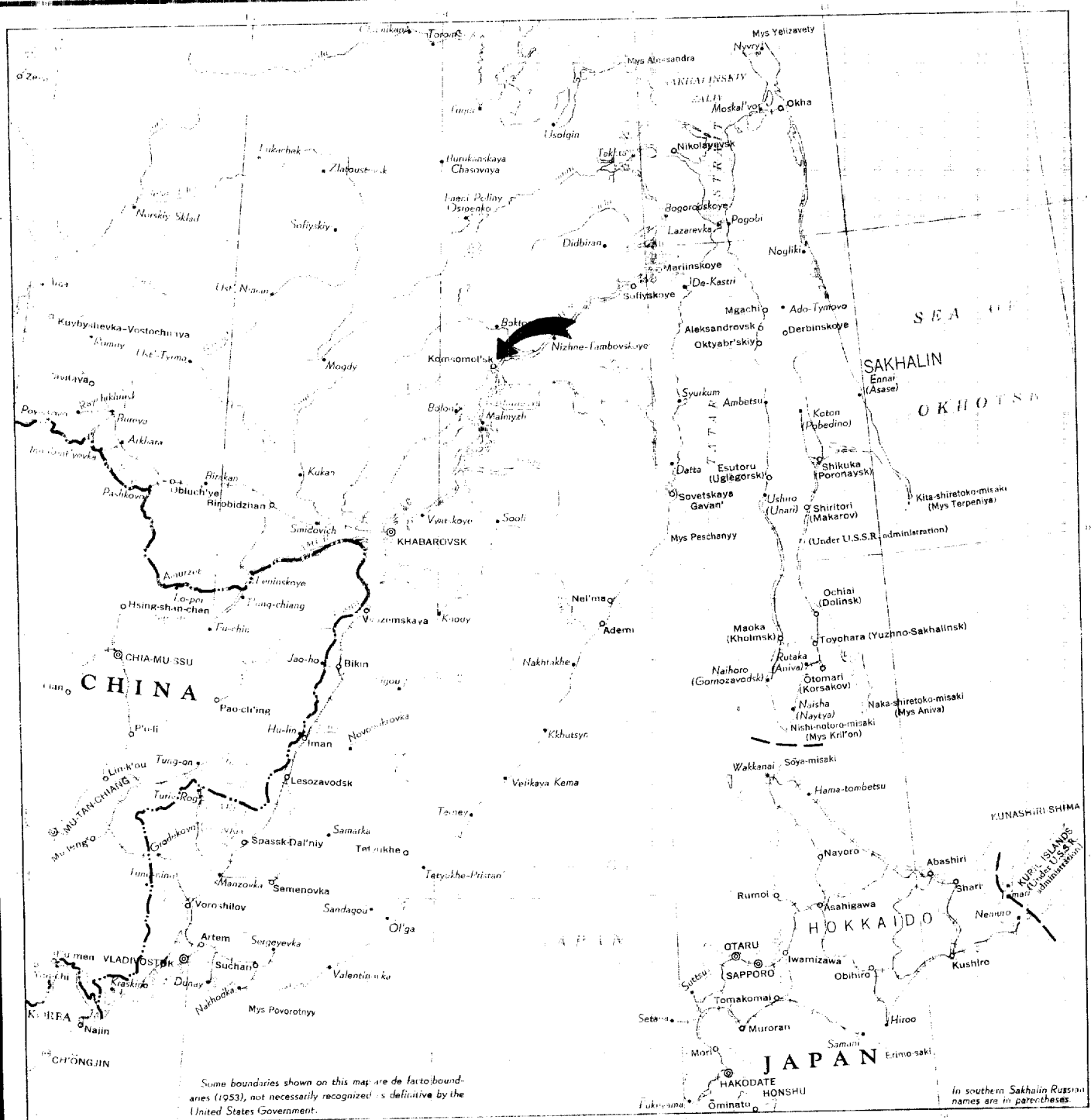
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PETROLEUM REFINERY NO. 409
KOMSOMOLSK, USSR

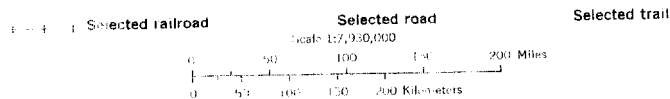
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U.S.S.R.
VLADIVOSTOK-NIKOLAYEVSK AREA



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KOMSOMOLSK PETROLEUM REFINERY NO. 409

25X1D

Komsomolsk Petroleum Refinery No. 409, appearing on [REDACTED] photography, is located in the extreme northern outskirts of Komsomolsk, approximately one mile northwest of the north end of the runway at Komsomolsk Airfield. The fenced portion of the refinery proper covers an area of approximately 200 acres. Buildings and equipment occupy less than one half of this area. Except for a small area in the extreme northwest corner, the refinery area is essentially level land. Space for future expansion is almost unlimited.

The refinery is accessible by highway and railroad from Komsomolsk proper and by several pipelines from the southeast POL storage facilities and pier (see the photograph, Figure 1, and the drawing, Figure 2) on the Amur River about 4 1/2 miles southeast of the refinery. Comparatively little activity could be seen in the refinery area at the time of photography. Smoke was issuing from the stack at the power house and a very small amount of steam was rising from a probable cooling pond near the crude oil distillation unit. No smoke could be detected at the stack of the crude oil distillation unit. No vehicular traffic was apparent, and no rail tank cars could be detected within the refinery proper, although a very limited number of tank cars might possibly be hidden by dark shadows along the loading rack. In a small holding yard near the north end of the Komsomolsk Airfield runway, one engine, with steam up, had six 2-axle tank cars and nine 4-axle tank cars in line. On an adjacent track was a line of two 2-axle tank cars and ten 4-axle tank cars.

Due to the small scale of the photography, limited resolution, and dark shadows, it was impossible to detect the intricate details necessary to identify all the buildings and equipment normally associated with petroleum refineries. Only one pipe still could be identified. Only one fractionating tower could be identified with any degree of certainty. Because of the lack of additional stacks, it is believed that no further refining of

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FIG 1. KOMSOMOLSK PETROLEUM REFINERY NO. 409 AND PETROLEUM STORAGE, SOUTHEAST

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the crude oil is done here other than that which is completed in the crude oil distillation unit. A possible lube oil treating unit may be associated with this unit.

The pipelines shown on the layout drawing of the refinery area, Figure 2, are only those where earth scars are prominent enough to be visible through the snow cover. Other pipes are probably buried too deep, or are covered by too much snow to be visible on this small-scale photography. Multiple earth scars indicate there may possibly be as many as 5 or 6 pipelines connecting the refinery area with the southeast POL storage area.

Approximately 60 storage tanks ranging in diameter from about [REDACTED] are located in the refinery area. The total storage capacity of these tanks is estimated to be approximately 550,000 barrels. This estimate includes the four 55,000-barrel tanks located a short distance north of the refinery proper (see item 1, Figure 2).

Komsomolsk Petroleum Storage Southeast is the major storage facility outside of the petroleum refinery area. The facility comprises two separate groups of storage tanks in two fenced areas occupying approximately 87 acres along the west bank of the Amur River. A total of about 51 vertical tanks and 12 horizontal tanks in the two storage areas have an estimated storage capacity of approximately 785,000 barrels. No open storage basins were detected in the vicinity. The storage areas are connected by rail to the refinery area and also to Komsomolsk proper. A pipeline leading toward Sakhalin Island is visible for approximately 70 miles, the extent of photo coverage. At the time of the photography, no rail activity was noted in the storage area. Adjacent to the storage area nearest the river is a 430-foot POL pier.

The POL storage annotated as Reference 1-5 on ATMP Chart [REDACTED] 1st Ed. December 1953 could not be identified. No additional POL storage areas were detected in the Komsomolsk area other than small storage facilities associated with several of the major industrial establishments, e.g., the Komsomolsk thermal power plant and "Amurstal" steel plant.

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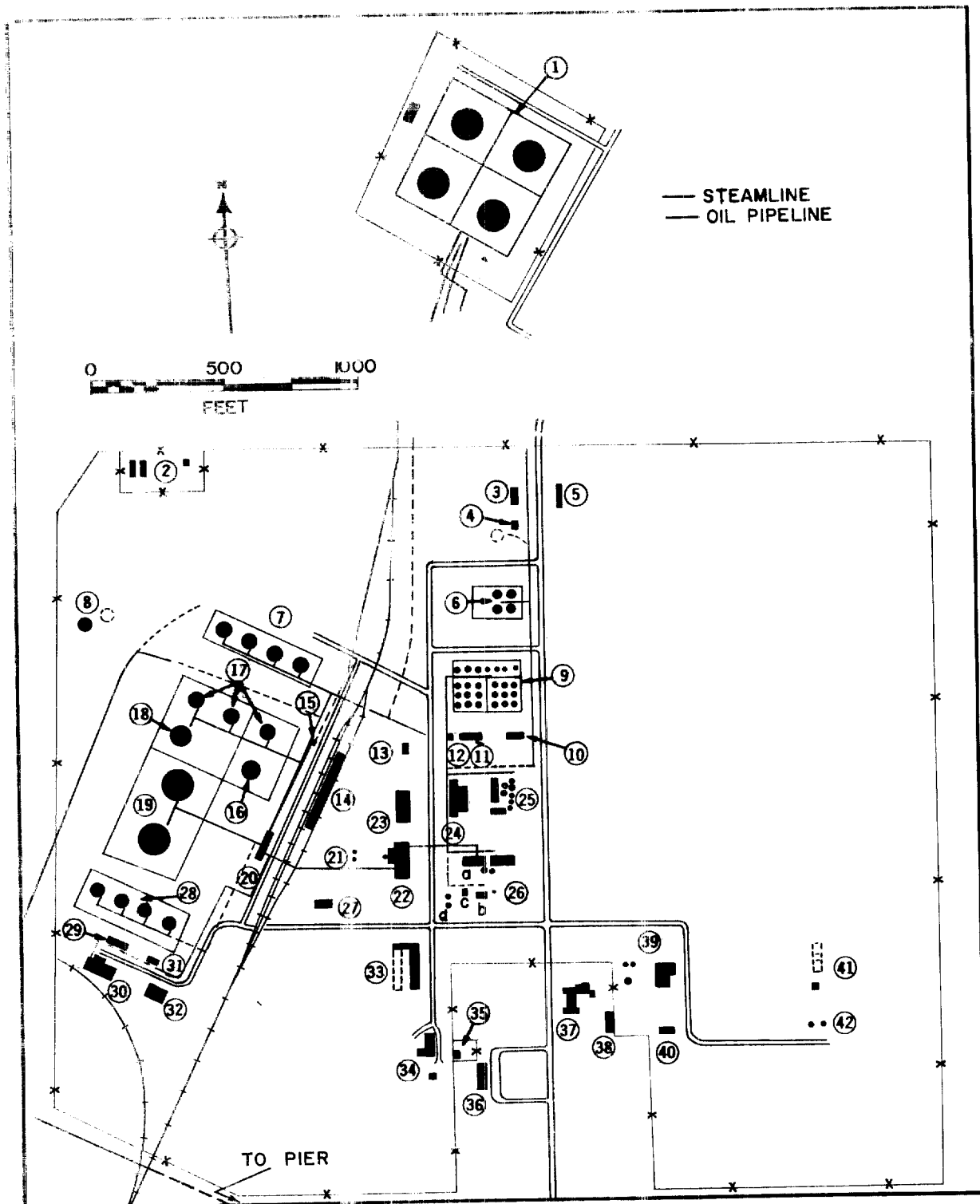


FIG 2. KOMSOMOLSK PETROLEUM REFINERY NO. 409

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Major features of the refinery and the southeast storage facility are shown on Figures 2 and 3 and described in keys to annotations which follow.

KEY TO ANNOTATIONS

KOMSOMOLSK PETROLEUM REFINERY NO. 409

- | | | |
|-----|--|----------------|
| 1. | Four vertical tanks with conical tops [REDACTED] diameter, approximately 35' high. One tank is dark colored, probably for heavy oils. Others are light colored, probably for volatile products. One small building, 30' x 60' is under construction immediately west of tanks. | 25X1D
25X1D |
| 2. | Storage area, fenced, containing one single-story warehouse [REDACTED] and two single-story warehouses, [REDACTED] | 25X1D |
| 3. | Unidentified building, two story, flat roof, 25' x 60'. | |
| 4. | Unidentified building, single story, flat roof, [REDACTED] Immediately west is possible buried tank, approximately 50' diameter. | 25X1D |
| 5. | Reported warehouse, single story, flat roof [REDACTED] | 25X1D |
| 6. | Four vertical tanks with conical tops, each [REDACTED] diameter, approximately 25' high. Two tanks are dark colored, probably for heavy oils and two tanks are light colored, probably for volatile products. | 25X1D |
| 7. | Four vertical tanks with conical tops, each 55' diameter, approximately 35' high. | |
| 8. | Excavations along hillside for two tanks. Foundation for one tank in place, approximately 50' diameter. | |
| 9. | Twenty-five vertical tanks with conical tops; two batteries of nine tanks, each [REDACTED] diameter, [REDACTED] high; one battery of three tanks, each [REDACTED] diameter, [REDACTED] high; one battery of four tanks, each [REDACTED] diameter, [REDACTED] high. | 25X1D
25X1D |
| 10. | Unidentified building, single story, gabled roof [REDACTED] | 25X1D |
| 11. | Possible compressor building, single story, flat roof [REDACTED] Three small stacks are visible on roof. | 25X1D |
| 12. | Probable pumping station, single story, flat roof, [REDACTED] | 25X1D |

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- 25X1D 13. Unidentified building, two story, flat roof, [REDACTED] with unidentified circular object on roof, approximately 15' diameter.
- 25X1D 14. Railroad loading rack, [REDACTED]
- 25X1D 15. Possible pumping station, two story, flat roof, [REDACTED]
- 25X1D 16. Circular earth scars, [REDACTED] diameter. Snow cover prevents determination of whether a tank is being constructed or dismantled.
17. Three vertical tanks with conical tops, each 55' diameter, approximately 35' high, probably for volatile products.
- 25X1D 18. One vertical tank, flat top [REDACTED] diameter, approximately 35' high, probably for volatile products.
- 25X1D 19. Two vertical tanks with conical tops, each [REDACTED] diameter, approximately 35' high, one probably for volatile products, and one probably for heavy oils.
- 25X1D 20. Pump house, two story, flat roof, [REDACTED] Roof cluttered with at least eight small stacks near west edge of building.
- 25X1D 21. Two vertical tanks with conical tops, each [REDACTED] diameter, approximately [REDACTED] high. These tanks probably are fuel storage tanks for the steam plant at Item 22.
- 25X1D 22. Boiler and power house, irregular shape, flat roof, main section is three story, 60' x 105'. Roof appears cluttered, but limited resolution precludes identification of objects. Along west wall is two-story section, [REDACTED] with a smokestack, approximately 95' high. Immediately west of this section, adjacent to south wall of main section is a single-story section, 35' x 60'.
- 25X1D 23. Probable maintenance building, single story, flat roof [REDACTED]
- 25X1D 24. Unidentified building, T-shape. Main section is two story, [REDACTED] Flat roof appears cluttered with approximately ten small irregularly-spaced ventilators. South wing is two story, flat roof [REDACTED] North wing is single story, flat roof [REDACTED]
- 25X1D 25. Unidentified processing unit. One building, single story, flat roof, [REDACTED] One building single story, flat roof [REDACTED] Seven vertical tanks; three [REDACTED] diameter, approximately [REDACTED] high; four [REDACTED] diameter, approximately [REDACTED] high. One of these tanks has appearance similar to a butane storage tank.

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26. Crude oil distillation unit. Dark shadows and small scale preclude description of all but the major components of this unit.
 - a. Fractionating column, approximately [REDACTED] high. Adjacent to this tower is another tower approximately [REDACTED] in diameter and approximately 60' high. Immediately to the north of these towers are two two-story buildings, each [REDACTED]. Roofs are cluttered but dark shadows prevent identification of objects. The extreme west end of the west building has a three-story section with a faint impression of a dome-like object protruding through roof, suggesting a possible agitator for a lube oil unit. Along the south edge of the west building is a probable cooling pond, approximately [REDACTED] square.
 - b. Pipe still. Building, 40' square, has two stories and a gabled roof. Tall stack is near east end of this building. Other equipment between the pipe still and the two buildings at (a) can be detected, but cannot be identified because of the dark shadows.
 - c. Possible control house for crude oil distillation unit. Single-story building, flat roof, [REDACTED] square. A water cooling tower has been reported at this point but present image bears no resemblance to typical European cooling towers.
 - d. Two vertical tanks, each [REDACTED] diameter, approximately [REDACTED] high. One of these tanks has been reported as a water tank.
27. Unidentified building, single story, gabled roof [REDACTED]
28. Four vertical tanks, conical tops, 50' diameter, approximately [REDACTED] high. Probably used for heavy oils.
29. Unidentified building, two story, flat roof [REDACTED]
30. Probable warehouse, single story, gabled roof [REDACTED]
31. Unidentified building, single story, flat roof, [REDACTED]
32. Unidentified building, two story, flat roof, [REDACTED]. Roof and west end appears cluttered, but objects are not distinguishable because of dark shadows.
33. Probable warehouse, U-shape, single story. North section has flat roof, [REDACTED]. East section has gabled roof, [REDACTED]. West section is still under construction.
34. Unidentified building, L-shaped. North section, two stories with flat roof, [REDACTED]. South section, three stories with flat roof, [REDACTED]. Immediately south of this section is a small, single-story, flat-roofed building, [REDACTED] square, which is probably used for vehicle repair. Several small objects in vicinity may be vehicles. A blacksmith shop has been reported in this area.

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35. Small secured area with small, single-story, gabled-roofed building, probably used for storage.

25X1D 36. Main administration building, three story, gabled roof [REDACTED].

25X1D 37. Administration-type building. L-shape, multi-sectional, flat roof, three stories. Main section [REDACTED] Wing, [REDACTED] At the southeast corner of wing is a tall towerlike structure [REDACTED] square, flat roof, and approximately 55' high. Several small shedlike buildings are in vicinity of this building along the fence which borders the building on the north and east.

25X1D 38. Possible warehouse, single story, gabled roof [REDACTED]

25X1D 39. Unidentified processing building, L-shape, three stories. Main section, 50' x 95'. Wing, [REDACTED] square. Adjacent to wing is a two-story section, [REDACTED] square. Along the north edge of building, several structures are barely discernible. Dark shadows prevent identification of these objects. About 70 feet to west of building are two vertical tanks [REDACTED] diameter, approximately 10' high, and one unidentified structure. Dark shadow gives appearance of a vertical tank (20' diameter, approximately [REDACTED] high), but top of object appears cluttered, suggesting a small fractionating-type tower.

25X1D 40. Unidentified building, single story, gabled roof, [REDACTED] A mess hall and restroom has been reported near this point.

25X1D 41. Possible power substation, single story, flat roof, [REDACTED] square. Immediately north of building is faint linear pattern suggestive of either a transformer yard or possible early foundation work for a new building. Limited resolution and small scale prevent positive identification.

25X1D 42. Two vertical tanks, each approximately [REDACTED] diameter, approximately [REDACTED] high.

KOMSOMOLSK PETROLEUM STORAGE SOUTHEAST

25X1D 1. Battery of three vertical tanks with conical tops, each [REDACTED] diameter, approximately 35' high and light colored. Walls of another tank are standing. Whether this tank is being dismantled or is under construction cannot be determined from the photography. Diameter of portion standing is [REDACTED] No debris is noted in vicinity of tank.

25X1D 2. Battery of four vertical tanks with conical tops, each [REDACTED] diameter, approximately 35' high. One is light colored, three are dark colored.

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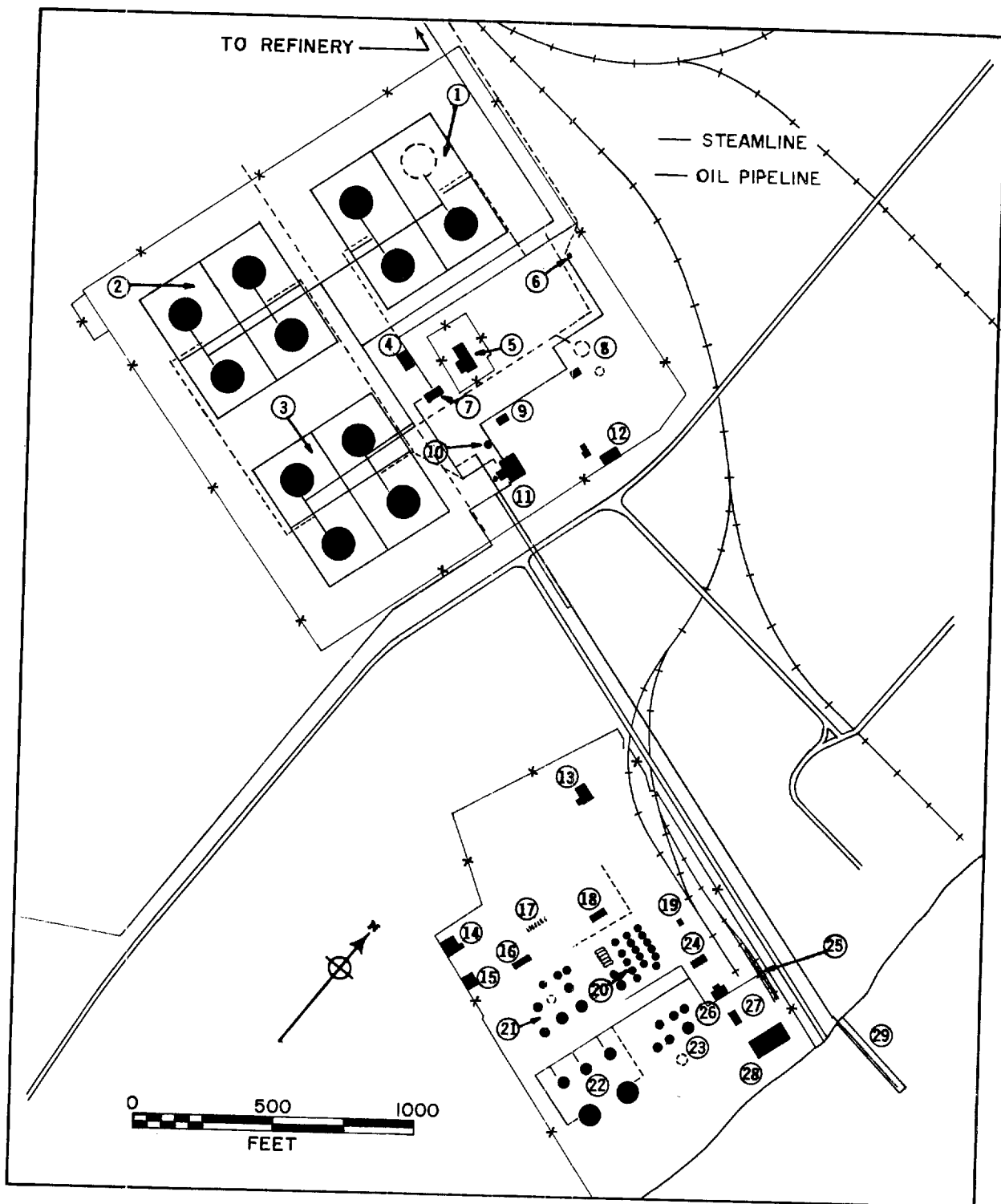


FIG 3. KOMSOMOLSK PETROLEUM STORAGE, SOUTHEAST

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- 25X1D 3. Battery of four vertical tanks with conical tops, each [REDACTED] diameter, approximately 35' high. One is light colored, three are dark colored.
4. Unidentified building, two story, flat roof, 30' x 60'.
- 25X1D 5. Warehouse, single story, gable roof [REDACTED] On the south side
25X1D of this building is a small, single-story, flat-roofed section [REDACTED]
25X1D [REDACTED] Small wire fence surrounds entire building.
- 25X1D 6. Unidentified building, single story, flat roof, [REDACTED]
- 25X1D 7. Pump house, single story, flat roof [REDACTED] Three small stacks
are on roof.
- 25X1D 8. Two buried tanks, approximately 30' and 60' diameter. Immediately
south of tanks is probable pump house, single story, flat roof [REDACTED]
9. Unidentified building, single story, flat roof, 30' x 40'.
10. Vertical tank, 20' diameter, approximately 15' high.
- 25X1D 11. Boilerhouse, three story, flat roof, [REDACTED] On southern edge of
25X1D building is two-story section, [REDACTED] Roofs of both sections are
cluttered but shadows and limited resolution prevent identification
of objects. A stack, adjacent to south end of building, is approxi-
mately 110' high.
- 25X1D 12. Probable administration building, two story, flat roof [REDACTED]
13. Possible maintenance building, two story, flat roof, 40' x 60'. At
southeast corner of building is a three-story section, 20' square.
More track activity appears around this building than is found around
most other buildings in the storage area. The yard around the building
is cluttered with many small indistinguishable objects.
- 25X1D 14. Unidentified building. East section is two story, flat roof, 20' x 60'.
West section is three story, flat roof, [REDACTED]
- 25X1D 15. Administration building, two story, hipped roof [REDACTED]
- 25X1D 16. Possible truck loading dock, single story, flat roof [REDACTED]
17. Battery of seven possible small horizontal tanks, approximately 5'
diameter, 10' long.
- 25X1D 18. Possible warehouse, single story, flat roof [REDACTED]

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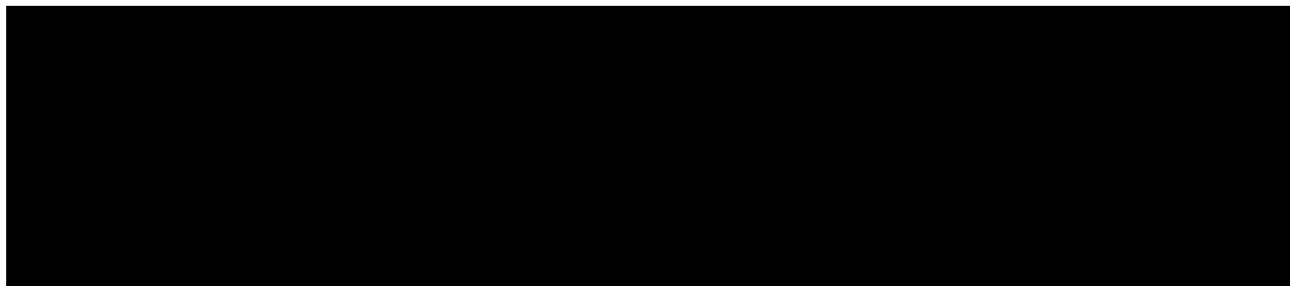
- 25X1D
19. Probable pump house, single story, flat roof [REDACTED] square.
- 25X1D
20. Battery of 18 vertical tanks and 5 horizontal tanks. Seventeen of the vertical tanks are 20' diameter and approximately [REDACTED] high. Five of these tanks may possibly have floating tops. One vertical tank is [REDACTED] diameter and approximately 20' high. The five horizontal tanks are approximately 10' diameter and 30' long. All of the vertical tanks are sitting on mounds of earth which raise the base of tanks at least 10' or more above the surrounding land.
- 25X1D
21. Battery of eight vertical tanks; three 20' diameter, approximately [REDACTED] high; three [REDACTED] diameter, 20' high, one possibly with floating top; two 40' diameter, approximately [REDACTED] high. Small circular mound approximately 20' in diameter indicates either a buried tank or a foundation for another vertical tank. All of these tanks are raised above surrounding land by being based on circular earth mounds.
- 25X1D
22. Battery of five vertical tanks; three 40' diameter, approximately [REDACTED] high. Two of these tanks appear to have floating tops, but dark shadows prevent positive identification. If these tanks have floating tops, then tanks are full. Two vertical tanks [REDACTED] diameter, approximately 40' high. One of these tanks almost certainly has a floating top and is almost full. Dark shadows prevent determination of type of top on other tank.
- 25X1D
23. Battery of six vertical tanks and one buried tank. Five tanks are [REDACTED] diameter, approximately 20' high, one possibly with floating top. One tank is 40' diameter, approximately [REDACTED] high. Buried tank is approximately 40' diameter.
- 25X1D
24. Possible warehouse, single story, flat roof, [REDACTED]
25. Railroad loading rack with possibly ten loading positions. No tank cars were at loading rack or in vicinity at time of photography.
- 25X1D
26. Possible pump house, single story, flat roof, [REDACTED] A small 10' x 25' section is attached to west wall of main building.
27. Unroofed building probably under construction, 30' x 50'.
- 25X1D
28. Partially-roofed, single-story building [REDACTED] Large rectangular holes in roof indicates either the building is under construction, roof is being repaired, or building is being dismantled. The north end of building appears to be completely open. There is no apparent reason for such a large building being associated with this POL storage area.
29. POL pier, 10' x 430'.

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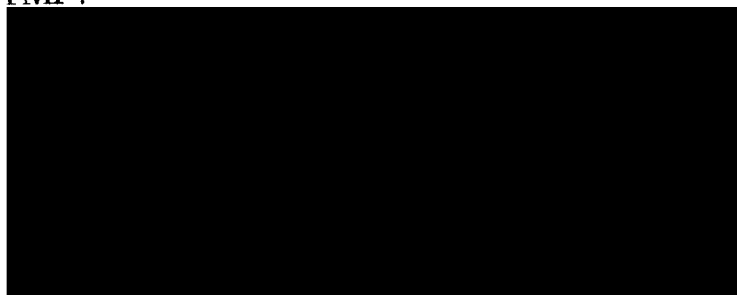
REQUIREMENT: This Photographic Intelligence Report has been prepared to satisfy requirement RR/E/R74/58 requesting a detailed description of Komsomolsk Petroleum Refinery No. 409 and any associated POL storage facilities in the Komsomolsk area.

25X1D



ATMP:

25X1A



REFERENCES:

ATIS #102, Soviet Petroleum Industry, Jun 51. (S)

COORDINATES AND B. E. NUMBERS:

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Komsomolsk Petroleum Refinery No. 409,
50°37'N/137°03'E



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Komsomolsk Petroleum Storage Southeast,
50°36'N/137°07'E



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